Amendments to the Claims

The Listing of Claims shown below will replace all prior version and listings of claims in the Application for patent.

1-34. (Canceled)

35. (Currently Amended) A method of producing calcium silicate hydrate comprising contacting a calcareous material with a crystalline siliceous material in an aqueous environment under elevated temperature and pressure and for a sufficient time to permit the calcareous material and crystalline siliceous material to react and form calcium silicate hydrate, wherein prior to said reaction, a ~~predetermined~~ quantity of a suspension agent is added to permit said reaction to take place with essentially ~~little or~~ no agitation, wherein the suspension agent is a reactive gel forming agent that forms a gel upon contact with any ~~combination~~ of the calcareous material, crystalline siliceous material and water, such that the resultant calcium silicate hydrate is in a semi-dry powder form.

36. (Previously Presented) The method as claimed in claim 35 wherein the calcareous material is mixed with water to form a slurry of slaked lime prior to addition of ~~a~~ any combination of the suspension agent and crystalline siliceous material.

37. (Previously Presented) The method as claimed in claim 36 wherein the water used to form the slurry is preheated.

38. (Previously Presented) The method as claimed in claim 35 wherein the suspension agent is mixed with water to form a slurry prior to being mixed with ~~a~~ the calcareous and/or crystalline siliceous material.

39. (Previously Presented) The method as claimed in claim 38 wherein the water used to form the slurry is preheated.

40. (Cancelled)

41. (Previously Presented) The method as claimed in claim 35 wherein the suspension agent is a source of amorphous silica.

42. (Previously Presented) The method as claimed in claim 35 wherein the suspension agent is selected from the group consisting of diatomaceous earth, clay, silica fume, cellulose pulp and mixtures thereof.

43. (Previously Presented) The method as claimed in claim 35 wherein the suspension agent is combined with a slaked lime slurry, optionally further diluted with water, and allowed to react to form a reactive gel, and subsequently combined with the crystalline siliceous material and subjected to elevated temperature and pressure to form calcium silicate hydrate.

44. (Previously Presented) The method as claimed in claim 35 wherein the crystalline siliceous material is combined with the calcareous material and suspension agent in a dry powdered state or as a slurry.

45. (Previously Presented) The method as claimed in claim 35 wherein the crystalline siliceous material is mixed into the gel to provide an essentially homogeneous reactive mixture.

46. (Canceled)

47. (Canceled)

48. (Canceled)

49. (Canceled)

50. (Withdrawn, Previously Presented) A calcium silicate hydrate produced according to the method of claim 35, wherein, when formed, the calcium silicate hydrate has a solids content of greater than 35% by wt.

51. (Currently Amended) A method of manufacturing calcium silicate hydrate comprising

using a reactive gel, said reactive gel being formed by combining a calcareous slurry with a reactive gel forming agent, the reactive gel having a consistency such that upon combination with a crystalline siliceous material, the crystalline siliceous material is suspended therein for subsequent reaction with the reactive gel in an aqueous environment under elevated pressure and temperature and for a sufficient time to form calcium silicate hydrate, without the need for mixing or agitation, such that the resultant calcium silicate hydrate is in a semi-dry powder form, wherein the reactive gel forming agent forms a reactive gel upon contact with any ~~combination~~ of the calcareous material, crystalline siliceous material and water.

52. (Previously Presented) The method as claimed in claim 51 wherein the reactive gel forming agent is a source of amorphous silica.

53. (Previously Presented) The method as claimed in claim 51 wherein the reactive gel forming agent is selected from the group consisting of diatomaceous earth, clay, silica fume, cellulose pulp and mixtures thereof.

54. (Previously Presented) The method as claimed in claim 51 wherein the crystalline siliceous material is mixed into the reactive gel to provide a homogeneous reactive mixture.

55. (Previously Presented) The method as claimed in claim 51 wherein the crystalline siliceous material is combined with the reactive gel in a dry powdered state or as a slurry.

56. (Canceled)

57. (Canceled)

58. (Canceled)

59. (Canceled)

60. (Currently Amended) A method of manufacturing calcium silicate hydrate comprising

using a suspension agent, the suspension agent being combined in sufficient quantities with a calcareous material and a crystalline siliceous material to maintain said components in suspension and thereby permit reaction between said components without the need for mixing or agitation, wherein the suspension agent is a reactive gel forming agent and forms a reactive gel upon contact with any ~~combination~~ of the calcareous material, crystalline siliceous material and water, wherein the suspension dewaters as the reaction proceeds such that the resultant calcium silicate hydrate is in a semi-dry powder ~~power~~ form.

61. (Previously Presented) The method as claimed in claim 60 wherein the calcareous material is mixed with water to form a slurry of slaked lime prior to addition of a suspension agent and/or crystalline siliceous material.

62. (Previously Presented) The method as claimed in claim 61 wherein the water used to form the slurry is preheated.

63. (Currently Amended) The method as claimed in claim 60 wherein the suspension agent is mixed with water to form a slurry prior to being mixed with any ~~combination~~ of the calcareous material and crystalline siliceous material.

64. (Previously Presented) The method as claimed in claim 63 wherein the water used to form the slurry is preheated.

65. (Canceled)

66. (Previously Presented) The method as claimed in claim 60 wherein the reactive gel forming agent is a source of amorphous silica.

67. (Previously Presented) The method as claimed in claim 60 wherein the reactive gel forming agent is selected from the group consisting of diatomaceous earth, clay, silica fume, cellulose pulp and mixtures thereof.

68. (Previously Presented) The method as claimed in claim 60 wherein the reactive gel forming agent is combined with a slaked lime slurry, optionally further diluted with water, and allowed to react to form a reactive gel which is subsequently combined with the crystalline siliceous material and subjected to elevated temperature and pressure to form calcium silicate hydrate.

69. (Previously Presented) The method as claimed in claim 60 to wherein the crystalline siliceous material is combined with the calcareous material and suspension agent in a dry powdered state or as a slurry.

70. (Previously Presented) The method as claimed in claim 60 wherein the crystalline siliceous material is mixed into the reactive gel to provide a homogeneous reactive mixture.

71. (Previously Presented) The method of claim 35, wherein, when produced, the calcium silicate hydrate has a post reaction solids content of greater than 35% by wt.

72. (Previously Presented) The method of claim 35, wherein, when contacting, approximate stoichiometric quantities of the calcareous material and the crystalline siliceous material are provided and a resultant product has a bulk density of around 120 to 200 kg/m^3.

73. (Previously Presented) The method of claim 35 further including adding excess crystalline silica to the calcareous material with the crystalline siliceous material such that a resultant product has a bulk density of up to about 380 to 460 kg/ m^3.

74. (New) A method of producing calcium silicate hydrate comprising

contacting a calcareous material with a crystalline siliceous material in an aqueous environment under elevated temperature and pressure and for a sufficient time to permit the calcareous material and crystalline siliceous material to react and form calcium silicate hydrate, wherein prior to said reaction, a quantity of a suspension agent is added to permit said reaction to take place with only periodic agitation, wherein the suspension agent is a reactive gel forming agent that forms a gel upon contact with any of the calcareous material, crystalline siliceous material and water, such that the resultant calcium silicate hydrate is in a semi-dry powder form.